

Table of Contents

Issue 99-2

Autumn 1999

<i>Letter from the Directors</i>	3
What Makes a Mad Cow Mad?	7
Outbreak of Salmonella Serotype Muenchen Infections Associated with Unpasteurized Orange Juice United States and Canada, June 1999.....	10
Campylobacter: Low-Profile Bug is Food Poisoning Leader.....	14
Link to Guillain-Barré.....	17
Revision of the Massachusetts Food Establishment Regulation in Process: 105 CMR 590.000/ <i>Food Code</i> Fact Sheet and Update	18
Does Washing Food Promote Food Safety?	21
Food Safety Resources	22
Simple Steps to Safer Food in the Home	23
When in Doubt--Throw it Out	24
Y2K and Your Family.....	26
Violations of the State Sanitary Code and Municipal Zoning Ordinances: Should Housing Violations Be Corrected in Illegal Units?	28
Internet Update.....	29
License/Permit Application Forms Available on the World Wide Web	30

The Reporter is published by the Massachusetts Department of Public Health, Division of Food and Drugs, Food Protection Program and the Division of Community Sanitation. For further information on these and other topics, Food Protection Program staff may be reached by calling 617-983-6712 and Division of Community Sanitation staff may be reached by calling 617-983-6762.

This publication is sent to all Boards of Health in the Commonwealth. It is requested that a copy be circulated to all board members and interested employees. Other interested individuals and agencies may request a copy by contacting the Editor.

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Letter from the Directors:

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Many claim that Autumn is the most beautiful time of year of Massachusetts, but the change of season from summer to autumn was particularly busy this year as Hurricane Floyd soared up the Atlantic Coast flooding basements and knocking out power as tree branches fell. During and immediately following the storm, telephone calls arrived from all over the state asking for information, guidance, and help. Fortunately the Division of Community Sanitation (DCS) and Division of Food and Drug's Food Protection Program (FPP) staff were in top form after a schedule-packed summer, and responded to the emergency requests.

The days that followed the downgraded Tropical Storm Floyd were an unanticipated test for the types of problems that might occur during the transition from 1999 to 2000, a.k.a. Y2K.

To spearhead the this Y2K planning, Assistant Commissioner Nancy Ridley will join the nearly 200 state emergency management team members at the Massachusetts Emergency Management Agency bunker in Framingham for the entire New Year's weekend. In addition, the FPP and DCS emergency response staff has been informed of their "on-call" status, and practice drills have been successfully completed.

Since the problems anticipated resemble those experienced during major

snowstorms and hurricanes, the Y2K drills have resembled actual emergency response actions undertaken in the past.

In order to review your personal home preparedness during emergencies and provide information to others, a series of articles are included in this edition of THE REPORTER: “Y2K and Your Family,” “Simple Steps to Safer Food in the Home,” and “When in Doubt--Throw it Out.”

During the last few months, the FPP has worked hard completing the writing and assembling of the revision of the Massachusetts Food Establishment Regulation: 105 CMR 590.000. In October, draft copies were distributed to all local Boards of Health and food industry associations, and the Public Health Council was informed about the context of the regulation and of public hearings scheduled to begin in November. (See pages 18-19 for a synopsis of the new regulations.)

In anticipation of the promulgation of these regulatory revisions in 2000, the FPP is planning a series of instructional meetings throughout the state. The meetings will include a review of the revision of the Massachusetts Food Establishment Regulations, in-depth explanation of the major additions, and, as warranted, interpretations of chapters and sections.

During the summer, five college interns, trained by the Division of Community Sanitation, inspected recreational camps for children. The staff inspected more than 200 camps registered in the Commonwealth. Earlier in the Spring, it was estimated that there were approximately 600 camps registered in the Commonwealth, although this estimated figure proved to be low as the staff recorded more than 800 camps.

These inspections did **not** alter the regulatory responsibilities of the local boards of health, which include the annual inspection and licensing of all camps within their jurisdiction. The DCS inspections were conducted in conjunction with local jurisdictions, and the DCS is pleased that so many of the Board of Health members and/or staff were

able to arrange their work schedules to accompany DCS staff during the actual inspections.

Overall, the camps smoothly passed inspection. The areas of greatest public health concern were the lack of health care consultants and confusion about the administration of medication. Several camps and local Boards of Health also expressed concern about the definition of a recreational camp.

Since the close of camp season, in September the DCS has held two informational hearings eliciting comments and testimony from local Boards of Health and the camp industry about the newly revised camp regulations. The hearings were held in Lenox and Framingham with more than 150 attendees. The DCS, together with the local Boards of Health and the camp industry, will amend the regulations where appropriate and a final promulgation by the State legislature is anticipated by mid-January 2000. In Spring 2000, the DCS will offer four regional training sessions focusing on the camp inspections and regulations.

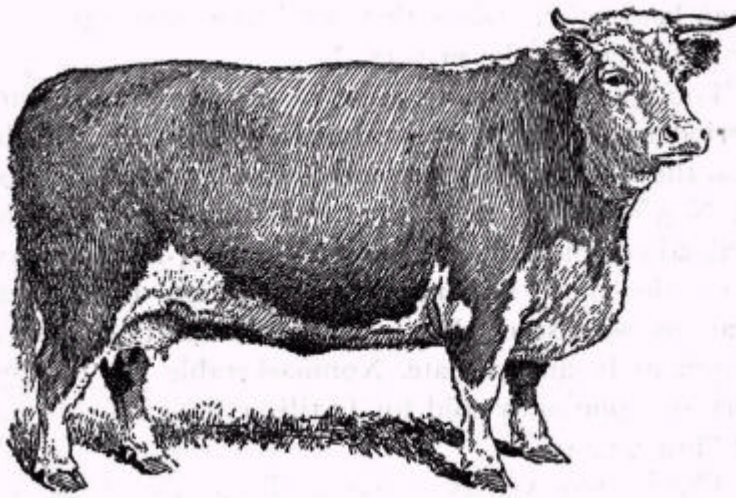
In 1999, the advisory committee on bathing beach quality (105 CMR 445.000, *Minimum Standards for Bathing Beaches*) reviewed the regulations, and the DCS with the Massachusetts Department of Environmental Protection are devising an indicator organism to establish bathing beach quality.

Robert Altobelli, R.S., was promoted to Supervisory Inspector of the Dairy Inspection Unit. Robert will continue his work in the western part of the state as well as oversee all the administrative responsibilities of the unit in the Jamaica Plain office. Ellen Gould, Senior Food and Drug Inspector has transferred to the Division of Epidemiology. Celestine L. Payne has joined the Division of Community Sanitation as the Administrative Secretary. ❖

What Makes a Mad Cow Mad?

Erica Berl, D.V.M.

With the invention of antibiotics and vaccinations and improvements in sanitation, the battle against infectious diseases seemed to be well under control. The chances of surviving common childhood illnesses increased dramatically since the beginning of this century. Smallpox has been irradiated



and polio may soon follow. However, any celebration of a victory over infectious agents would be premature. Besides the emergence of new viral diseases, such as the HIV virus, and the new, pathogenic strains of bacteria, such as *E. coli* O157: H7 and *Salmonella* Typhimurium DT 104, evidence is building for the existence of a new form of infectious agent called a “prion.”

Prions are essentially proteins. They consist of strings of amino acids with a few sugars attached. They have no DNA, no cytoplasm, and no cell walls, but evidence is mounting that these proteins are the cause of a class of diseases called transmissible spongiform encephalopathies or TSE's. There are several known TSE's, of which Bovine spongiform encephalopathy (BSE), more commonly known as Mad Cow Disease, is perhaps the most notorious. This is the only TSE thought

to be transmissible to humans.

BSE was first recognized in cattle in the mid-1980's in Great Britain. It was nicknamed Mad Cow Disease, because affected cows exhibited “crazy” behavior. They might stagger and sway, stare off into space, show hypersensitivity to sound and touch and act disoriented. In all cases, the neurologic disease would progress to eventual coma and death. Many cows were affected throughout Great Britain, and it was through careful epidemiological research that the probable route of infection was determined to be through ingestion. Further it has been speculated that the common practice of using rendered cattle as a protein source in feed for cattle was responsible for the rapid spread and wide distribution of this disease.

This disease devastated the British beef industry, and 15 years later, it is just beginning to recover. When the disease was first recognized, Great Britain started to quarantine and slaughter affected cows and their herd-mates. Over 170,000 cows have been slaughtered since the beginning of this epidemic. When it became clear that feeding ruminant protein back to ruminants was responsible for the spread of this disease, this practice was banned, although the ban was not fully enforced.

When the discovery of BSE became known, the United States immediately halted the import of live cattle from Great Britain and any other country in which BSE had been diagnosed. In the United States, all cattle imported before this ban have been accounted for, and all but four have been slaughtered. (The remaining four are living out their lives in quarantine on a farm in Vermont since

their owner would not sell them to the government.) The United States Department of Agriculture (USDA) also began a program of testing cows with neurologic signs at slaughter as well as doing random sampling. More than 8000 samples have been checked, and no BSE has been found.

In 1996, the stakes in the effort to understand and control BSE increased dramatically with the startling diagnosis of a BSE-like disease in a human. The human TSE, Creutzfeldt-Jakob Disease (CJD) has been known for many years. It is a worldwide sporadic disease affecting approximately one person per million per year. After a long incubation period of many years, symptoms typically appear in people when they are 60 years of age or older. The neurologic symptoms progress to death within 3-12 months. In most of these cases, no source of infection or exposure can be determined. In 1996, it became clear that a similar but distinct disease was emerging in Great Britain. This disease, called new variant CJD (vCJD), affected younger people, often in their twenties, and progressed more slowly with death occurring 2 years after onset of symptoms. To date, there have been 43 cases of confirmed and suspected vCJD in Great Britain and one in France. The most recent case was diagnosed as recently as this past summer.

There has been a lot of debate over the cause of vCJD and its relation to BSE. Prior to BSE, all evidence showed that TSE's did not cross species lines. The TSE of sheep known as scrapie has been recognized for 200 years, but it has never been associated with a human case. However, as research continues, the evidence linking BSE to vCJD is becoming stronger. In fact, in experiments, infected bovine brain tissue has been shown to cause BSE in mice, and this "mouse assay" is currently used to assess infectivity of various bovine tissues. In addition, several lemurs and a spider monkey in a zoo in France developed BSE-like disease after be-

ing fed material from cows which were most likely infected. Furthermore, when the brain tissues of affected animals are examined and compared, there is a recognizable pattern of degeneration in the brain as well as some characteristic physicochemical markers. The brains of affected cows and humans show such similar characteristics that it is almost certain that the two diseases are related.

One difficulty of this theory is in the fact that the exact link between the cattle and humans has not been determined. Mouse assay studies have shown that the brains, spinal cords, and lymphatic tissues of affected cattle are the most infective, however, the meat from cattle shows no ability to infect. In addition, extensive research on the eating habits and potential cattle exposure of the affected people has not revealed a common source of their infections. It is also unclear how an infectious agent such as a prion which has no ability to replicate on its own and no ability to move on its own, can make its way from the intestinal tract to the brain and wreak the havoc that it does. In addition, with all the beef that has been eaten in Great Britain, 43 cases of BSE does not seem like a lot. Some scientists hypothesize that in order for people to become ill, they must have a genetic predisposition for this disease. Still other scientists warn that the number of cases is low because we may only be at the beginning of a much larger epidemic. The incubation period of BSE in cows is thought to be as long as 8 years. It could be just as long or longer in humans, in which case we may just be seeing the first few cases.

There are still many questions and concerns about BSE. Britain seems to be gaining control of its epidemic since the number of cows diagnosed have declined dramatically from over 36,000 in 1992 to a projected 3100 cases in 1999. Britain has also taken steps to tighten up its ban on the feeding of ruminant protein back to ruminants or any

other animals. Many materials such as brains, spinal cords, and other organs are no longer allowed to be sold for human or animal consumption. Britain has just recently begun to export small amounts of beef since the European Union lifted its ban on British beef this past July. To assure the meat's safety, slaughterhouses preparing meat for export must demonstrate that they can prevent any high-risk material from getting into the meat. So far, only one slaughterhouse has passed this test.

There are no recognized cases of BSE in the U.S. To protect the U.S. beef supply, the

FDA has instituted a ban on feeding ruminant protein sources back to ruminants. With the help of state feed inspectors and regulators, the FDA is working towards realizing full compliance with the ban. The hope is that, should BSE get into this country, its spread would be contained by keeping it out of the food chain, and the impact on the beef industry would be minimized. Of course, the real hope is that it will never enter this country. ❖

Food Safety for Seniors

Studies show that people over 50 suffer more complications from food-borne illness, including hospitalization and even death, than those younger. "Seniors and Food Safety," at www.cfsan.fda.gov/~dms/seniors.html, explains why seniors are at risk and how food-borne illness occurs. The site, managed by FDA's Center for Food Safety and Applied Nutrition, includes tips on how to prepare food safely at home and how to make sure carry-out food stays safe on the trip home. Visitors also can take a quiz to see if their kitchen passes a food safety test. ❖

FDA Consumer Septmber-October 1999

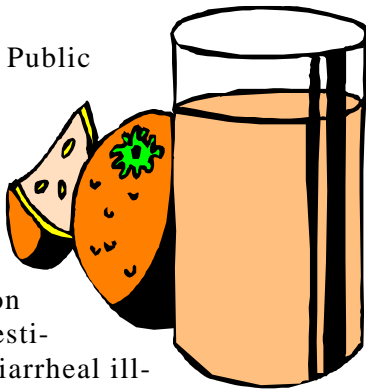
Outbreak of Salmonella Serotype Muenchen Infections Associated with Unpasteurized Orange Juice -- United States and Canada, June 1999

July 16, 1999 / 48(27);582-585

<http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4827a2.htm>

Accessed: August 6, 1999

During June 1999, Public Health-Seattle and King County (PHSKC) and the Washington state health department and the Oregon Health Division independently investigated clusters of diarrheal illness attributed to Salmonella serotype Muenchen infections in each state. Both clusters were associated with a commercially distributed unpasteurized orange juice traced to a single processor, which distributes widely in the United States. As of July 13, 207 confirmed cases associated with this outbreak have been reported by 15 states and two Canadian provinces; an additional 91 cases of *S. Muenchen* infection reported since June 1 are under investigation. This report summarizes the two state-based investigations and presents preliminary information about the outbreak in the other states and Canada.



tion of Salmonella serogroup C2 with a pulsed-field gel electrophoresis (PFGE) or restriction fragment length polymorphism pattern that was indistinguishable from the outbreak strain.

In a case-control study by PHSKC of nine ill and 29 well restaurant A patrons, illness was significantly associated with drinking smoothies containing orange juice (100% of cases exposed compared with 14% of controls; odds ratio=undefined, $p < 0.001$). By July 9, 85 persons with onset of illness during June 10-30 were identified in Washington. Sixty-seven patients reported either drinking unpasteurized orange juice produced by Sun Orchard* of Tempe, Arizona or eating at an establishment where the juice was served. Among 79 patients for whom information was available, the median age was 27 years (range: 9 months-95 years), and 51% were male. The predominant symptoms reported were diarrhea (94%), fever (75%), and bloody diarrhea (43%). Eight (10%) patients were hospitalized, and one man had a stroke coincident with his Salmonella infection. No patients died.

Washington

On June 19, state health officials were notified of three cases of Salmonella serogroup C2 infection, which were confirmed subsequently as *S. Muenchen*. Interviews of the ill persons revealed one common feature: drinking a fruit smoothie containing unpasteurized orange juice from different outlets of restaurant chain A. PHSKC and the Washington State Department of Health initiated an investigation. A case was defined as illness with onset after June 9, with isolation of *S. Muenchen* from stool or blood or isola-

Oregon

On June 23, the Washington County Department of Health received a report of a case of salmonellosis; the isolate was serotyped subsequently as *S. Muenchen*. An investigation by the Oregon Health Division identified four ill persons among a group of 13 that had eaten a brunch buffet in Portland. A case was defined as diarrhea (three or more loose stools within 24 hours) or vomiting in a person who attended the buffet. Illness was significantly associated with drinking unpas-

teurized orange juice produced by Sun Orchard (relative risk=undefined; pless than 0.001).

By July 12, 57 persons with S. Muenchen infection with onset of illness during June 14-29 were identified in Oregon. The median age was 36 years (range: 9 months-95 years), and 54% were female. Forty-four patients were known to have drank unpasteurized orange juice before illness onset. Among the 39 patients for whom information was available, the predominant symptoms were diarrhea (100%), fever (89%), abdominal cramps (85%), chills (82%), and bloody diarrhea (59%). Seven persons were hospitalized; no patients died.

Recall of Orange Juice

On June 25, on the basis of the epidemiologic information from the investigations in Washington and Oregon and discussions with the Food and Drug Administration (FDA), Sun Orchard voluntarily issued a recall. Unpasteurized orange juice produced by Sun Orchard is distributed to Arizona, California, Colorado, Nevada, New Mexico, Oregon, Texas, Utah, Washington, Wisconsin, and the Canadian provinces of Alberta and British Columbia under the brand names Aloha, Earls and Joeys Tomato's, Markon, Sysco, Trader Joe's, Voila, and Zupan. Other states and provinces received these products through secondary distribution. The juice was distributed to hotels, restaurants, and supermarkets, and was served in individual glasses as "fresh-squeezed" juice in hotels and restaurants. In addition, a frozen form of the unpasteurized juice was sold under the brand name Vareva for use in restaurants and institutions.

On June 28, samples from a previously unopened container of unpasteurized Sun Orchard orange juice analyzed at an FDA laboratory and the Washington State Public Health Laboratory yielded S. Muenchen; samples from the smoothie blender and juice dispenser at an outlet of restaurant A ana-

lyzed by the Washington State Public Health Laboratory yielded Salmonella serogroup C2. Isolates from both sources had a PFGE pattern that was indistinguishable from strains isolated from patients. Subsequently, orange juice collected from the Sun Orchard factory, cultured in an FDA laboratory and serotyped by the California State Public Health Laboratory, yielded S. serotype Javiana, S. serotype Gaminara, S. serotype Hidalgo, and S. serotype Alamo in addition to S. Muenchen. Efforts are ongoing to determine the source of all orange juice components, whether they might have been used in other brands, and the source of the Salmonella contamination.

Other States and Canada

An outbreak-related case was defined as S. Muenchen infection after June 1 in a person who drank unpasteurized orange juice or whose isolate had a PFGE pattern with no more than one band difference from the Washington outbreak strain. In addition to the Washington and Oregon cases, 66 cases were reported in persons in 13 other states: Arizona (four), California (21), Connecticut (one), Florida (one), Illinois (one), Iowa (two), Massachusetts (seven), Michigan (three), Minnesota (six), New Mexico (10), Texas (five), Utah (four), and Wisconsin (one). Cases also were reported from the Canadian provinces of Alberta (four) and British Columbia (eight). Among the 66 patients for whom information was available, the median age was 32 years (range: 6 months-66 years), and 58% were female. Six persons were hospitalized. An additional 78 cases of S. Muenchen infection occurring after June 1 reported by nine other states and the two Canadian provinces are under investigation.

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Editorial Note:

S. Muenchen is one of approximately 2400 *Salmonella* serotypes that can cause illness in humans. *Salmonella* infection typically causes gastroenteritis characterized by diarrhea, abdominal cramps, fever, and dehydration. Bacteremia, meningitis, osteomyelitis, and abscesses also can occur. Each year in the United States, 800,000-4 million *Salmonella* infections result in approximately 500 deaths (1). *S. Muenchen* is an infrequently isolated serotype, accounting for approximately 1.6% of human *Salmonella* isolates reported in 1997 to the Public Health Laboratory Information System (2,3). Oregon typically reports less than 6 isolates per year and Washington less than 10 per year.

Juice has been implicated as the vehicle of transmission in at least 15 outbreaks in the

United States in this century involving pathogens, including *Escherichia coli* O157:H7, *Cryptosporidium parvum*, and other *Salmonella* serotypes (e.g., *S. Typhi* and *S. Hartford*) (4). In an outbreak of *E. coli* O157:H7 infections attributed to unpasteurized apple juice, one child died, and 14 children developed hemolytic uremic syndrome (5). The outbreak described in this report is the second and largest *Salmonella* outbreak associated with unpasteurized orange juice (6). The acidic nature of orange juice (pH of 3.4-4.0) previously was believed to inhibit bacterial growth and protect against foodborne illness; however, recent outbreaks and laboratory investigations have demonstrated otherwise. *Salmonella* serotypes Gaminara, Hartford, Rubislaw, and Typhimurium have survived in orange juice for up to 27 days at pH 3.5 and 60 days at pH 4.1 (7).

In 1998, FDA proposed Hazard Analysis and Critical Control Point (HACCP) and labeling regulations to improve the safety of juice products (8). The proposed HACCP regulation requires juice to be produced using methods such as pasteurization or an equivalent process to ensure that pathogenic microorganisms are destroyed. In the outbreak described in this report, the implicated company had a HACCP plan. Investigations are under way to determine where these control measures failed and how the juice became contaminated. FDA published a final rule for the labeling of fruit and vegetable juices that includes a warning statement to advise consumers of the risks associated with drinking unprocessed juices (9). However, the labeling requirements do not apply to juice or products containing juice that are not packaged (i.e., sold by the glass) in retail establishments, such as the product implicated in this outbreak. In Washington, some consumers were unaware that they were drinking unpasteurized commercial orange juice in their fruit smoothies.

Because the source of contamination of the orange juice is unknown and to facilitate outbreak investigation, local and state health departments are encouraged to investigate all cases of *S. Muenchen* infections occurring since June 1 using a questionnaire from CDC's Foodborne and Diarrheal Diseases Branch, Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, telephone (404) 639-2206, and to consider referring isolates for PFGE with the standardized PulseNet Salmonella protocol by the Washington State Public Health Laboratory or by another PulseNet laboratory. Health departments also should consider investigating cases of *S. Alamo*, *S. Gaminara*, *S. Hidalgo*, and *S. Javiana* in which illness onset occurred after June 1.

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* Use of trade names and commercial sources is for identification only and does not imply endorsement by CDC or the U.S. Department of Health and Human Services.

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Campylobacter: Low-Profile Bug is Food Poisoning Leader

Audrey Hingley

http://www.fda.gov/fdac/features/1999/599_bug.html

accessed: September 24, 1999:

When it comes to food poisoning, big outbreaks make headlines. *E. coli* in apple juice and alfalfa sprouts. *Listeria* in cheese and hot dogs. *Salmonella* in eggs and on poultry. But the most frequently diagnosed food-borne bacterium rarely makes the news. The name of the unsung bug? *Campylobacter*.

"Most *Campylobacter* infections are sporadic and not associated with an outbreak, but we know it causes up to 4 million human infections a year," says Frederick J. Angulo, D.V.M., an epidemiologist with the national Centers for Disease Control and Prevention. Federal and state health experts have long recognized that *Campylobacter* causes disease in animals. Conclusive proof that the bacteria also causes human disease emerged in the 1970s, and by 1996, *Campylobacter* was sitting atop the bacterial heap as the number one cause of all domestic food-borne illness. (See "[Tracking Down Trouble: Bacteria That Cause Food-Borne Illness](#).")

In addition, with the emergence of antibiotic-resistant *Campylobacter*, "the true magnitude of the problem is becoming clearer," says Angulo, who also heads the CDC arm of the National Antimicrobial Resistance Monitoring System.

Campylobacter is commonly found in the intestinal tracts of people or animals without causing any symptoms of illness. But eating contaminated or undercooked poultry or meat, or drinking raw milk or contaminated water, may cause *Campylobacter* infection, or campylobacteriosis.

Symptoms of campylobacteriosis usually occur within two to 10 days of ingesting the

Tracking Down Trouble: Bacteria That Cause Food-Borne Ill-

Bacteria	Cases of Food-Borne Illness
<i>Listeria</i>	77
<i>Vibrio</i>	51
<i>Yersinia</i>	139
<i>E. coli</i> O157:H7	340
<i>Shigella</i>	1,263
<i>Salmonella</i>	2,207
<i>Campylobacter</i>	3,974
Total	8,051

bacteria. Children, the elderly, and people with weakened immune systems are particularly at risk. The most common symptoms include mild to severe diarrhea, fever, nausea, vomiting, and abdominal pain.

Most people infected with *Campylobacter* can get well on their own without treatment, though antibiotics may be prescribed for severe cases. But complications can occur, such as urinary tract infections or meningitis. The bacteria also is now recognized as a major contributing factor to [Guillain-Barré syndrome](#), the most common cause of acute

paralysis in both children and adults.

Concerns About Chicken

Although found in many farm animals, *Campylobacter* in poultry is causing experts the most concern. There have been several studies pointing to high levels of *Campylobacter* present on poultry at the retail level, including a recent two-year Minnesota Department of Health study that found that 88 percent of poultry sampled from local supermarkets tested positive for the bacteria.

"The retail study was in collaboration with the Minnesota Department of Agriculture; their inspectors went to supermarkets throughout the St. Paul/Minneapolis Twin Cities area to cover a variety of supermarket types, from big chains to mom-and-pop stores," says Kirk E. Smith, D.V.M., a Minnesota state epidemiologist who participated in the study.

Many prior surveys have found *Campylobacter* contamination rates of between 40% and 60%, he says. "But 88%—this degree [of contamination] surprised even me," he admits.

In studies conducted by the U.S. Department of Agriculture's poultry microbiological safety research unit, more than 90 percent of poultry tested positive for *Campylobacter*, in levels ranging from one cell to over a million cells per bird.

Norman J. Stern, Ph.D., research leader for the unit, says the infection of poultry broiler flocks typically occurs at week three in the six-week growing cycle. It's not unusual, he says, for *Campylobacter* to infect the entire flock.

Things only get worse by the time the chickens reach the processing plant, he says. USDA studies have found a hundredfold increase in bacteria amounts on the birds' exterior from that detected on the farm. "The exterior contamination represents consumer

exposure," he explains.

To help reduce that exposure, Stern says the poultry industry is currently participating in a USDA-led study that will cover "every element of production where chickens can become infected, from ... shells to farmers' boots to wild bird droppings. When we're done … we will be able to genetically fingerprint the organism so we can ascribe a relationship between various environmental sources and the spread of pathogens." The study was slated to end in September.

Resistance to Antibiotics

According to the Minnesota Department of Health study, the number of *Campylobacter* infections resistant to a class of antibiotics called fluoroquinolones has been on the increase since 1992. While most Americans acquired the resistant infections while on foreign travel, Kirk explains, "we have been seeing a significant increase in domestically acquired resistant cases as well." The Food and Drug Administration approved the use of fluoroquinolones in food animals in 1995. The study concluded that antibiotic use in U.S. poultry is contributing to antibiotic resistance.

Resistance to fluoroquinolones, not only by *Campylobacter* but by other bacteria as well, is a concern, explains Jesse Goodman, M.D., chief of the division of infectious diseases at the University of Minnesota, "because fluoroquinolones are commonly used to treat severe infectious diarrhea, often before the specific cause has been identified. Fluoroquinolones are very important drugs for treating a variety of serious human infectious diseases."



CDC studies also show an increase in resistance to fluoroquinolones and this can be correlated to fluoroquinolone use in poultry, according to Angulo. In addition, "We did a case control study in 1997, comparing people with [nonresistant] *Campylobacter* infec-

tions with fluoroquinolone-resistant infections, and found that those with resistant infections [were] more likely to have severe infections, bloody diarrhea, and be hospitalized."

Because of the concern over antibiotic resistance, FDA is considering whether, before it reviews a new animal drug for approval, manufacturers must assess the likelihood that use of a certain drug in food animals will transfer resistance and create a public health problem. In addition, new procedures for monitoring antibiotic use and resistance after approval also are being considered.

"FDA believes a new regulatory framework is needed to address resistance concerns raised by the food animal use of antibiotics," says Goodman, who also serves as a deputy medical director for FDA.

The Animal Health Institute, a national trade association representing manufacturers of animal health products, says it also is concerned about the possibility of antibiotic use in food animals causing resistant bacteria to develop. But the organization believes that the requirements FDA is proposing may have "unintended negative consequences on animal health ... and risk sending unhealthy animals into the food chain."

Hollinger says, "At this time we are not taking action toward withdrawal of these products from the market. We have asked the sponsors of poultry fluoroquinolone products to provide data that would describe the prevalence of resistance in poultry flocks and identify possible actions to prevent the emergence of disease in treated flocks."

Calling it a "farm to plate" approach, Hollinger says that the *Campylobacter* problem can be addressed "at any number of points" along the food chain. "They all need to be reviewed and evaluated for new methods to deal with the problems."

USDA's Stern says he believes the poultry industry is "trying very hard" to move toward enhanced food safety for economic as well as safety benefits. For example, he explains, a company could use extensive microbiological criteria to ensure safety as a marketing tool. Just as consumers are willing to pay more for "gourmet" coffees or specialty food items, an increasingly health-conscious consumer could be wooed by a health emphasis when it comes to safer poultry products, he says.

Vaccine on the Horizon

A team of Navy, Army, and drug industry researchers is also moving ahead in the development of a prototype vaccine for *Campylobacter*. The vaccine has shown promise in animal models and currently is undergoing clinical trials.

Capt. Louis A. Bourgeois, director of the enteric diseases program at the Naval Medical Research Center in Bethesda, Md., says the Navy has been involved in *Campylobacter* research since the early 1980s.

"Historically, the military has had longstanding diarrheal problems with troops deploying overseas," he explains.

"*Campylobacter* was an emerging pathogen in the early '80s, and by the mid-1980s, we began doing more directed studies towards a vaccine development."

Bourgeois and his fellow researchers say an approved vaccine is likely "several years away" but they remain optimistic. Bourgeois says private companies are interested in a vaccine due to its possible application in "traveler's diarrhea," a common ailment.

"We know from animal model work that we can protect animals against *Campylobacter* colonization," says colleague Daniel Scott, M.D., deputy director of the Navy's enteric

diseases program. "We have also gained an increasing amount of knowledge in the clinical and preclinical development of this product, especially in terms of what happens with the actual infection. We are already seeing some evidence that term protection can occur, which allows for a lot of optimism."

The Consumer's Role

While researchers, regulatory agencies, and scientists grapple with *Campylobacter*, what can you do to protect yourself?

"Consumers go to the supermarket thinking everything [there] is clean, and that is just not true," says Donald H. Burr, Ph.D., a research microbiologist in FDA's Center for Food Safety and Applied Nutrition. "People

can't assume that anymore. Consumers have a responsibility in food safety."

Those responsibilities include prompt refrigeration, thorough cooking, avoiding cross-contamination, and washing hands and surfaces often. In addition:

- Don't let raw foods such as uncooked poultry touch other food, since bacteria can spread.
- Thaw raw poultry on a bottom shelf in the refrigerator so that blood or juices don't drip onto other foods.
- Do not reuse marinades from raw meat or poultry.
- Never put cooked poultry or meat back on the plate that held the raw product.
- Wash your hands frequently, especially after handling raw meat and poultry.
- Wash kitchen surfaces and cutting boards often, especially after they have come in

Link to Guillain-Barré

Campylobacter is not the only thing that triggers Guillain-Barré syndrome, but it is now recognized as one of the disorder's major forerunners. Guillain-Barré, which also may follow a viral illness, is an autoimmune attack on the peripheral nerves that can cause weakness and paralysis. Annually, about two people per 100,000 contract the syndrome.

"We also know that many patients who have [campylobacteriosis] seem to have a more severe form of Guillain-Barré," Leshner says.

Guillain-Barré can be difficult to diagnose in its early stages, although Leshner says clinicians often suspect anyone with "acute weakness" as having the disorder. It's usually diagnosed via clinical observation, spinal fluid analysis, and electromyogram (EMG) tests, which analyze electrical activity in muscles.

"With mild cases, probably no more is needed other than supportive care. But if the person is unable to walk or has breathing problems, more dramatic treatments may be needed," Leshner says. "A small percentage of people have residual disabilities, and these people have the form linked to *Campylobacter*." ♦

**Revision of the Massachusetts Food Establishment Regulation in Process:
105 CMR 590.000/*Food Code* Fact Sheet and Update
Massachusetts to Revise Chapter X (105 CMR 590.000) of the State Sanitary Code**

<http://www.magnet.state.ma.us/dph/fpp/fcobta.htm>
Accessed: September 24, 1999

The Massachusetts Department of Public Health is planning the first major revision in 14 years of the state's retail food and food service establishments regulation. Two documents, used together, will comprise the new regulation, 105 CMR 590.000 Minimum Sanitation Standards for Food Establishments - Chapter X. First, the federal *Food Code* will form the core of the regulation. Second, a supplemental document will include additional requirements, which are specific to Massachusetts. In some instances, these requirements delete or refine the federal *Food Code* provisions and, in other instances, there will be additional requirements.

What is the *Food Code*?

The U.S. Food and Drug Administration (FDA) publishes the *Food Code*, a document that guides retail outlets such as restaurants and grocery stores and institutions such as nursing homes on how to prevent foodborne illness.

Local, state and federal regulators use the FDA *Food Code* as a model to help develop and update food safety rules, and to achieve national uniformity. Also, many of the 1 million retail food establishments in the United States use the *Food Code*.

The *Food Code* is updated every two years, to coincide with the biennial meeting of the Conference for Food Protection. The Conference is comprised of representatives from regulatory agencies at all levels of government, the food industry, academia, and consumer organizations that work to improve food safety at the retail level. The Massachusetts Department of Public Health supports this process and works closely with both FDA and the Conference to refine the *Food Code* on an ongoing basis.

Because the *Food Code* is more comprehensive than the existing 105 CMR 590.000, we recommend that you obtain the 1999 *Food Code* as soon as possible. Because the *Food Code* will be the base document of the revised 590.000, early familiarity with it will greatly assist in implementing the revision of 105 CMR 590.000.

Why do I need a copy of the *Food Code*?

The Massachusetts Department of Public Health (MDPH) determined that the most appropriate method of revising the Massachusetts food regulation was to adopt the 1999 *Food Code* by reference, thus incorporating the entire *Food Code* into 590.000. Adopting by reference ensures that the Massachusetts regulation will always conform to the federal standard. All future changes to the *Food Code* will automatically be effective in Massachusetts unless deleted or in conflict with our existing supplemental provisions.

Why do I need a copy of the revised 590.000 in addition to FDA's 1999 Food Code?

The revised 590.000 will contain supplemental provisions that are specific to Massachusetts, such as special operations and provisions that apply to administration, licensing and enforcement. The MDPH will provide a cross-referencing outline to make it easier to use the supplement in conjunction with the 1999 *Food Code*. A draft of the revised 590.000 for "*discussion purposes only*" will be available on the Massachusetts Department of Public Health's Internet Homepage by the end of September 1999.

How do I obtain a copy of the 1999 Food Code?

Copies of the 1999 *Food Code* are available on-line:

- 1999 Food Code in HTML or PDF versions (1Mb; 1.2 Mb uncompressed) and Word Perfect 6/7/8 version compressed in self-extracting zip format (623Kb; 2Mb uncompressed) are available on-line and can be downloaded from the following FDA website: <http://vm.cfsan.fda.gov/~dms/fc99-toc.html>

Copies of the 1999 *Food Code* may also be ordered from National Technical Information Services (NTIS). For ordering options, call NTIS at 1-800-553-6847 or 703-605-6000.

- To order directly on-line, the NTIS website address is: <http://www.ntis.gov/yellowbk/1nty831.htm>

Or write to the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161

How do I obtain a copy of the revised 590.000 supplement?

A copy of the revised 105 CMR 590.000 supplement, once promulgated, will be available for purchase at the State Book Store, Room 116, Massachusetts State House, Boston, Massachusetts, or call the State House Book Store at 617-727-2834. You can also purchase the supplement at the Western Office of the Secretary of the Commonwealth at 436 Dwight Street, Springfield, MA , telephone: 413-784-1376. Additional information on purchasing Massachusetts State Regulations is available online at the Secretary of the Commonwealth's Homepage: www.state.ma.us/sec.

The revised 590.000 will be available on the MDPH Division of Food and Drug - Food Protection Program web site: <http://www.state.ma.us/dph/fpp.htm>.

When will the new 590.000/Food Code go into effect?

The revised 105 CMR 590.000 is scheduled to go to public hearing in November 1999. The effective date is projected to be in early 2000.

Will there be 590.000/Food Code Workshops for industry and local boards of health?

MDPH and FDA will co-sponsor a week long training program on the 1999 *Food Code* September 13-17, 1999. For information on this training, contact the Division of Food and Drugs at 617-983-6712. In addition, we plan to coordinate statewide training programs with industry, academia and the local regulatory associations to ensure that comprehensive training in the requirements of the 590.000/*Food Code* is available.

What are some of the significant changes in the revised 590.000 and 1999 *Food Code*?

Examples of new requirements include:

Detailed charts that provide specific time, temperature and humidity for cooking meat and other raw foods derived from animals.

Modification of time and temperature controls for cooking hamburgers and pork, as well as criteria for types of beef that can be served rare without a consumer advisory.

Recommendations to food establishment managers on how to ensure appropriate food workers' health and hygiene practices, including provisions that prohibit bare-hand contact with ready-to-eat food.

Requirements mandating that food-establishment managers are knowledgeable in the prevention of foodborne illness.

Provisions for using "time" instead of time and temperature as a public health control.

Safe handling instructions for retail operations that package meat and poultry.

Modification of recommendations related to reduced oxygen packaging to more clearly address *Clostridium botulinum* as a potential hazard in certain packaging processes.

Provisions for date-marking potentially hazardous refrigerated ready-to-eat foods, which are held for more than 24 hours.

Methods that food establishments may use to advise consumers of the increased risk of food-borne illness when ready-to-eat animal-derived foods are offered raw or undercooked.

Enhanced food safety protection for highly susceptible populations of the potential risks associated with raw shellfish, eggs, unpasteurized juices and raw seed sprouts.

Modifications in general administrative procedures.

Modification of requirements for mobile food operations.

Application of HACCP (Hazard Analysis Critical Control Point) in routine inspections and variance requests.

Prepared by:

Massachusetts Department of Public Health
Division of Food and Drugs - Food Protection Program
305 South Street Jamaica Plain, MA 02130
617-983-6712

Does Washing Food Promote Food Safety?

Food Safety and Inspection Service
United States Department of Agriculture
Washington, D.C. 20250-3700 Food Safety Features
July 1999

accessed: October 12, 1999
<http://www.fsis.usda.gov/OA/pubs/washing.htm>

Historically, we equate washing to cleanliness. We wash clothes, linens, cars, dishes, and ourselves. So, it is logical that many people believe meat and poultry can be made cleaner and safer by washing it. Is this true? Does washing meat, poultry, eggs, fruits, and vegetables make them safer to eat?

Review of studies from several universities related to washing meat and poultry indicate that there is no benefit. In fact, washing can allow bacteria on meat and poultry to spread to other ready-to-eat foods. But always remember, bacteria that is present on the surface of the meat or poultry will be destroyed by cooking to a temperature of 160°F.

Cross-Contamination

Bacteria in raw meat and poultry juices can be spread to other foods, utensils, and surfaces. We call this cross-contamination.

Hand washing after handling raw meat or poultry or its packaging is a necessity because anything you touch afterwards could become contaminated. In other words, you could become ill by picking up a piece of fruit and eating it after handling raw meat or poultry. Practice good hand washing before and after handling raw foods as well as when using the bathroom, changing diapers, tending to a sick person, blowing your nose, sneezing and coughing, and after petting animals.

It is important to prevent cross-contamination from raw meat or poultry juices by washing counter tops and sinks with hot, soapy water. If desired, you may

sanitize with a solution of one teaspoon of liquid chlorine bleach per quart of water.

Packaging materials from raw meat or poultry also can cause cross-contamination. Never reuse them with other food items. These and other disposable packaging materials, such as foam meat trays, egg cartons, or plastic wraps, should be discarded.

Washing or Soaking Meat and Poultry

Washing raw poultry, beef, pork, lamb, or veal before cooking it is not recommended. Some consumers think they are removing bacteria from the meat and making it safer; however, any bacteria present on the surface is destroyed by cooking it to a temperature of 160°F.

Callers to the USDA Meat and Poultry Hotline sometimes ask about soaking poultry in salt water. This is a personal preference and serves no purpose for food safety. If you choose to do this, however, preventing cross-contamination when soaking and removing the poultry from the water is essential.

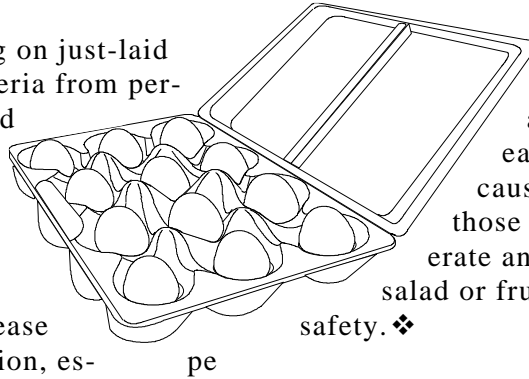
Sometimes consumers wash or soak ham, bacon, or salt pork because they think it reduces the sodium or salt enough to allow these products to be eaten on a sodium-restricted diet. However, very little salt is removed by washing, rinsing, or soaking a meat product and is not recommended.

Washing Eggs

Do not wash eggs before storing or using them. Washing is a routine part of commer-

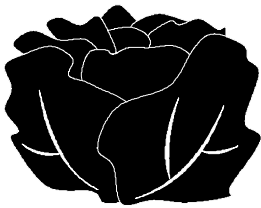
cial egg processing and the eggs do not need to be washed again. Federal regulations outline procedures and cleansers that may be used.

"Bloom", the natural coating on just-laid eggs that helps prevent bacteria from permeating the shell, is removed by the washing process and is replaced by a light coating of edible mineral oil which restores protection. Extra handling of the eggs, such as washing, could increase the risk of cross-contamination, especially if the shell becomes cracked.



ucts are not approved or labeled by the Food and Drug Administration for use on foods. You could ingest residues from soap or detergent absorbed on the produce.

When preparing fruits and vegetables, cut away any damaged or bruised areas because bacteria that cause illness can thrive in those places. Immediately refrigerate any fresh-cut items such as salad or fruit for best quality and food safety. ❖



Washing Produce

Before eating or preparing, wash fresh produce under cold running tap water to remove any lingering dirt. This reduces

bacteria that may be present. If there is a firm surface, such as on apples or potatoes, the surface can be scrubbed with a brush. Consumers should not wash fruits and vegetables with detergent or soap. These prod-

Food Safety Resources

By Phone:

U.S. Department of Agriculture Meat and Poultry Hotline
1-800-535-4555

10 a.m. to 4 p.m. Eastern time, Monday through Friday

Recorded messages available 24 hours a day

Food and Drug Administration

Food Information Line

1-888-SAFEFOOD (1-888-723-3366)

10 a.m. to 4 p.m. Eastern time, Monday through Friday

Recorded messages and fax service available 24 hours a day

On the Internet:

www.foodsafety.gov/~dms/fs-toc.html

www.cfsan.fda.gov/~mow/foodborn.html

www.cdc.gov/ncidod/diseases/foodborn/foodborn.htm

www.fsis.usda.gov/OA/pubs/consumerpubs.htm

www.epa.gov/OGWDW/Pubs/

www.epa.gov/pesticides/consumer.htm

Simple Steps to Safer Food in the Home

FDA Consumer September-October 1999

http://www.fda.gov/fdac/features/1999/599_food.html

Accessed September 24, 1999

Wash hands and surfaces often.

- Wash hands with hot soapy water before preparing food and after using the bathroom, changing diapers, and handling pets.

Moisten hands, apply soap, and rub hands together for 20 seconds before rinsing with water.

- Wash knives, utensils and counter tops in hot, soapy water after preparing each food item and before going on to the next one.
- Use plastic or other non-porous cutting boards. Wash them in hot, soapy water. Try to run them through an automatic dishwasher, as well. If possible, use one cutting board for raw meat, poultry and seafood and another for salads and other ready-to-eat foods.
- Use paper towels instead of wash cloths and towels to clean up kitchen surfaces. If you do use wash cloths and towels, wash them often in the hot cycle of the washing machine.

Don't cross-contaminate (spread bacteria from one source to another).

- When shopping, keep raw meat, poultry and seafood apart from other food in the grocery cart.
- Store raw meat, poultry and seafood on the bottom shelf of the refrigerator so that raw juices don't drip onto other foods and contaminate them.
- Don't place cooked food on an unwashed plate that just contained raw meat, poultry or seafood.

Cook to proper temperatures.

- Stick meat thermometers inside of foods to make sure they are cooked all the way through.
- Heat leftovers to 165°F (74°C).

- Cook fish until it is opaque and flakes easily with a fork.
- Follow the package cooking directions when microwaving food.

Refrigerate promptly.

- Keep the temperature of the refrigerator at 40°F (4°C) and the freezer at zero°F (-18°C). Occasionally check the temperatures with an appliance thermometer.
- Refrigerate or freeze food within two hours of being at room temperature.
 - Defrost food in the refrigerator, under cold running water, or in the microwave--never at room temperature, such as on the kitchen counter.
 - Marinate foods in the refrigerator, not at room temperature--for example, on the kitchen counter.
 - For stuffed poultry, remove the stuffing and refrigerate separately from the meat.
 - Pack items loosely in the refrigerator to allow air to circulate properly.

Recommended Temperatures--Degrees Fahrenheit (Degrees Celsius):

Whole poultry	180°F (82°C)
Ground turkey or chicken	165°F (74°C)
Ground beef, lamb, pork, or veal	160°F (71°C)
Roasts and steaks	145°F (63°C)

Eggs, egg dishes	160°F (71°C) (Or until yolk and white are firm, not runny. Avoid foods with raw or only partially cooked eggs.)
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When in Doubt--Throw it Out

The Partnership for Food Safety Education

Four Simple Steps to Fight Bac

<http://www.fightbac.org/steps/doubt.html>

Accessed: August 6, 1999

Clean: Wash hands and surfaces often
 Separate: Don't Cross-contaminate
 Cook: Cook to proper temperatures
 Chill: Refrigerate promptly

Safe refrigerator and freezer storage time limits are given for many common foods in the "Cold Storage" table. But what about something you totally forgot about and may have kept for too long?

Danger--Never taste food that looks or smells strange to see if you can still use it. Just discard it.

Is it Moldy? The mold you see is only the tip of the iceberg. The poisons which molds can form are found under the surface of the food. So, while you can sometimes save hard cheese, salamis and firm fruits and vegetables by cutting the mold out, remove a large area around it. However, most moldy food should be discarded.

Cold Storage		
Product	Refrigerator (40°F)	Freezer (0°F)
Eggs		
Fresh, in shell	3 weeks	Don't Freeze
Raw yolks, white	2-4 days	1 year
Hardcooked	1 week	Don't freeze well
Liquid pasteurized eggs or egg substitutes		
opened	3 days	Don't freeze
unopened	10 days	1 year
Mayonnaise, commercial		
Refrigerate after opening	2 months	Don't freeze
TV Dinners, Frozen Casseroles		
Keep frozen until ready to serve		3-4 months
Deli & Vacuum-Packed Products		
Store-prepared (or homemade) egg, chicken, tuna, ham, macaroni salads	3-5 days	All of these products don't freeze well
Pre-stuffed pork & lamb chops, chicken breasts stuffed with dressing	1 day	
Store-cooked convenience meals	1-2 days	
Commercial brand vacuum-packed dinners with USDA seal	2 weeks, unopened	
Soups & Stews		
Vegetable or meat-added	3-4 days	2-3 months

Product	Refrigerator (40°F)	Freezer (0°F)
Hamburger, Ground & Stew Meats		
Hamburger & stew meats	1-2 days	3-4 months
Ground turkey, veal, pork, lamb & mixtures of them	1-2 days	3-4 months
Hotdogs & Lunch Meats		
Hotdogs		
opened package	1 week	
unopened package	2 weeks	
Lunch meats		
opened	3-5 days	In freezer wrap, 1-2 months
unopened	2 weeks	
Bacon & Sausage		
Bacon	7 days	1 month
Sausage, raw from pork, beef, turkey	1-2 days	1-2 months
Smoked breakfast links, patties	7 days	1-2 months
Hard sausage-pepperoni, jerky sticks	2-3 weeks	1-2 months
Ham, Corned Beef		
Corned beef in pouch with pickling juices	5-7 days	Drained, wrapped 1 month
Ham, canned - label says keep refrigerated	6-9 months	Don't freeze
Ham, fully cooked - whole	7 days	1-2 months
Ham, fully cooked - half	3-5 days	1-2 months
Ham, fully cooked - slices	3-4 days	1-2 months
Fresh Meat		
Steaks, beef	3-5 days	6-12 months
Chops, pork	3-5 days	4-6 months
Chops, lamb	3-5 days	6-9 months
Roasts, beef	3-5 days	6-12 months
Roasts, lamb	3-5 days	6-9 months
Roasts, pork & veal	3-5 days	4-6 months
Variety meats-tongue, brain, kidneys, liver, heart, chitterlings	1-2 days	3-4 months
Meat Leftovers		
Cooked meat and meat dishes	3-4 days	2-3 months
Gravy and meat broth	1-2 days	2-3 months
Fresh Poultry		
Chicken or turkey, whole	1-2 days	1 year
Chicken or turkey pieces	1-2 days	9 months
Giblets	1-2 days	3-4 months
Cooked Poultry, Leftover		
Fried chicken	3-4 days	4 months
Cooked poultry dishes	3-4 days	4-6 months
Pieces, plain	3-4 days	4 months
Pieces covered with broth, gravy	1-2 days	6 months
Chicken nuggets, patties	1-2 days	1-3 months

Y2K and Your Family

Massachusetts Emergency Management Agency

<http://www.magnet.state.ma.us/mema/downloads/y2k/Y2KANDYOURFAMILY.doc>

Accessed: September 24, 1999

This is a check list to help you and your family prepare for unlikely, but possible, consequences from Y2K disruptions. You should prepare as you would for an approaching New England winter storm.

Stock supplies to last a week or so. Don't hoard, but consider stocking up on foods you normally eat that are non-perishable and pick up a few extra items each time you shop. That way the expense is low, and if you don't need them, you haven't lost any money since it's food you normally eat.

Water. Store potable water in empty soda bottles. Seal tight, and store enough for each person for a week or so. A normal active person requires about two quarts of water a day. Also consider water for hygiene – washing, brushing teeth, flushing toilets, etc.

Money. You might want some money on hand in case ATMs or credit cards have Y2K difficulty. If you do, just take enough you feel comfortable with, and take it out ahead of time – don't wait until December.

Flashlights and extra batteries

Portable radio and extra batteries

Extra Blankets

Tools (Hammer, nails-to hang blankets over open doorways to conserve heat)

Sleeping Bags

Insulated underwear (It will be winter-time)

Knit caps

Gloves

Waterproof boots

First aid kit

First aid book

Fire extinguishers

Check your smoke detectors and have extra batteries

Deck of cards, games (For kids-of all ages-if there is no TV)

Books

Diapers

Baby formula

Toilet Paper

Pointed shovel

Paper plates

Keep your gas grill full. Only use it outside, never in the house

Firewood

Prescription medicine supply

Aspirin

Talk to neighbors - you can "pool" some items - exchange ideas

Check with your Town Hall, Police, and Fire Department for additional Y2K news

Your parents, grandparents - inform, reassure, help them prepare
Home medical monitoring equipment - check with maker for Y2K compliance
Programmable Thermostats - check compliance
Security Systems - check compliance

A few other ideas or suggestions

Your personal computer. You might want to check your computer makers web site. They should be able to tell you Y2K compliance status, or provide a download to fix it if needed.
Financial Records. Make paper copies of financial records you have on your computer, copies of bank statements, investments, insurance papers, if you have a business- your accounts receivable. Obtain a Social Security benefit statement, and your credit report. Copy your utility bills for proof of meter readings.

BEWARE of scam artists. The Federal government is printing an extra \$70,000,000,000 in paper money. Scam artists will be targeting this, as well as people's fears.

MEMA

Director Stephen J. McGrail
Massachusetts Emergency Management Agency
400 Worcester Road
Framingham, MA 01701
508-820-2000

For additional information and assistance, please contact your **MEMA** Area Director

Area I	Area II	Area III
Director Kevin Tully Post Office Box 116 Tewksbury, MA 01876-0016 978-640-9500 FAX: 978-851-9500	Director Thomas Rodger Post Office Box 54 Bridgewater, MA 02324-0054 508-697-3111 FAX: 508-697-8869	Director John Pappas Post Office Box 1190 Belchertown, MA 01007 413-323-6306 413-323-6398

Feb 99

Violations of the State Sanitary Code and Municipal Zoning Ordinances:

Scenario: A board of health identifies several violations of Chapter II of the State Sanitary Code during a housing inspection. Afterward, the board discovers that the residence also violates local zoning regulations.

The Department of Public Health has been asked to address the preceding scenario. Does enforcement of zoning requirements take precedence over inspection and enforcement of the Sanitary Code? If so, what are the liability implications for the board of health if it failed to inspect and enforce potential health and safety violations? The Office of the General Counsel has determined that the Sanitary Code and local zoning ordinances can be enforced independently of each other. The following is the Department's response based on a search of relevant statutes and case law.

The State Sanitary Code is a state law (M.G.L. c.111, §127A) which authorizes the Department to issue regulations relating to matters of public health and safety, and delegates enforcement of the Code to the local boards of health. Regulations promulgated by the Department state that, "The Sanitary Code shall apply throughout the Commonwealth unless and to the extent the provisions of any chapter are expressly limited." (105 CMR 400.010) An opinion of the Attorney General states that the, "State Sanitary Code is applicable throughout the Commonwealth and is enforceable whatever the area or situation." (Op. Atty. Gen., June 3, 1966, p.361) Under this language, zoning enforcement does not supercede the State Sanitary Code unless directly authorized to take precedence by an express provision contained in an applicable statute, regulation, or case law.

The Department has not identified any relevant statutes, regulations, or case law that would suggest that zoning enforcement should take precedence over the State Sanitary Code. In the absence of any such express authority, it must be assumed that there is no such priority of zoning ordinances over the Sanitary Code. The Department concludes that the Sanitary Code and local zoning ordinances can be enforced independently of each other in any order the municipality chooses.

Therefore, the Department recommends that local boards of health inspect and enforce the State Sanitary Code regardless of whether a unit is also in violation of local zoning requirements. Clearly, if the health inspector identifies such zoning violations, the appropriate zoning authority should be notified. As a practical matter, the Department encourages Code inspectors to work closely with zoning/building inspectors when both Code and zoning violations exist and to inform the property owner of the nature of both violations. As long as the unit continues to be occupied, the board of health should enforce compliance with the Sanitary Code. Once the unit is vacated, the board may choose to dismiss one or all outstanding violations, as appropriate. ❖

The Massachusetts Department of Public Health

"Helping People Lead Healthy Lives in Healthy Communities"

www.state.ma.us/dph/

Internet Update

Greg A. Tocco, Internet Coordinator

The Massachusetts Department of Public Health Internet Homepage continues to grow in both content and the viewers. In the last five months (May-September 1999), the Homepage has had over 73,000 viewers, and a key component of its growth is the Food Protection Program and Division of Community Sanitation.

Presently, the Food Protection Program's Homepage is averaging 640 viewers per month, and the Division of Community Sanitation, more than 200 viewers.

The Food Protection Program Homepage has information for everyone, from consumer food safety tips to industry-specific fact sheets. In 1999, license and permit applications were added to the Homepage in downloadable formats. By being able to download the forms on site, the applicant does not have to call the Division, request an application, or wait for its arrival via the mail.

Recent additions to the Homepage include the proposed revision to "Chapter X (105 CMR 590.000) of the State Sanitary Code" and the 105 CMR 590.000/Food Code Comparison Guide. The additions have provided an opportunity for all interested viewers to see the proposed revisions to the Regulations in an easy-to-read, accessible format.

Other recent publications on the Homepage include the Updated Interstate Certified Shellfish Shippers List, Sanitary Operating Procedures for Cider Mills and the 1999 Survey of Bottled Water Sold in Massachusetts.

The Division of Community Sanitation Homepage is also attracting many Internet users. Recent additions of Urea Formaldehyde Foam Insulation (UFFI) information include: required sales/rental disclosure forms, lists of analytic laboratories and removal contractors, and an information sheet that provides data on indoor and outdoor air formaldehyde levels.

The Storm Fact Sheet received much attention after Tropical Storm Floyd hit New England. Local Boards of Health and the public were able to use the information to assist in the clean-up of contaminated flooded areas. This fact sheet can be viewed at: www.state.ma.us/dph/dcs/dcs/stormfct.htm.

For anyone wishing to access the Food Protection Program Homepage, go to <http://www.state.ma.us/dph/fpp>. This address is also where you can view both the current and past editions of "The Reporter." ❖

License/Permit Application Forms Available on the World Wide Web

As of March 1999, all applications for permits issued by the Food Protection Program are now available "on-line." In cooperation with the Internet Web staff at the MDPH, copies of the applications and support materials are now downloadable. The site also a series of fact sheets to assist with the application and inspection. The Downloadable License/Permit Applications include:

Food Processing

- Initial Licensure for Food Processing and/or Distribution at Wholesale
- Transport Bakery Products into the Commonwealth for the Purpose of Sale
- Slaughtering and Processing Meat and Poultry

Food Cold Storage

- Frozen Desserts and Ice Cream Mix Transported into the Commonwealth
- Manufacture and Sale of Stuffed Toys
- Manufacture and Sale of Upholstered Furniture and Bedding
- Sterilization/Sanitation of Bedding, Upholstered Furniture, and Filling Materials
- Bottled Water or Carbonated Nonalcoholic Beverages

- In-state

- Out-of-state

Vending Machines

- Food and/or Beverage
 - Water

Methyl and Wood Alcohol

To access and download any of these application forms as well as support information, the Internet address is <http://www.state.ma.us/dph/fpp/fpplc.htm>. ❖